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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,100	09/18/2003	Takahiro Matsumoto	1232-5157	6139
27123	7590	02/01/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			EVERHART, CARIDAD	
			ART UNIT	PAPER NUMBER
			2829	

DATE MAILED: 02/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/665,100

Applicant(s)

MATSUMOTO ET AL.

Examiner

Caridad M. Everhart

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 10-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

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Applicant's arguments filed 11-12-2004 have been fully considered but they are not persuasive.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 17-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Support was not found in the disclosure as originally filed for the apparatus limitations "a first processing unit...a second processing unit..." and limitations of the dependent claims in addition to these limitations of claim 17. The only description of apparatus was found on pages 8 and 9 of the specification, which corresponded to original claims 8 and 9..

**Response to Arguments**

Applicant has cancelled claims 1-9 and submitted new claims 10-23. Applicant has argued that Kikuchi does not disclose the first through third "obtaining" steps, the "evaluating" and the "selecting" steps.

These arguments are respectfully disagreed with for the following reasons, which are given in the rejections below.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 10-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi (US 2002/0042664A1).

With respect to the detection step, this is the same as the obtaining an image information step, as the when an image is obtained, the alignment mark is detected. Therefore, as described in the previous rejection, Kikuchi discloses detecting through image information the position of every alignment mark or position detection mark(paragraph 0007 and paragraph 0136) by using a light-receiving surface. The calculations are done with respect to a plurality of positions(paragraph 0275). Kikuchi also teaches two position detecting methods, one being a statistical method and the other being based on a nonlinear function(paragraphs 0040 and 0048), which is interpreted to be the two position obtaining methods or steps. The third obtaining step is provided by Kikuchi in the calculating step(paragraph 0282 and 0307), which was described in the last Office Action. Kikuchi also teaches the evaluation step, which is the comparing of data step which was described in the last Office Action. Kikuchi also teaches the selection step(paragraph 0083). The calculation of residual error (paragraph 0230) and the storage and comparison in order to carry out the selection step corresponds to the evaluation step of evaluation of the approximation degrees preceding the actual step of selection. With respect to template comparison, this corresponds to the evaluation and selection, as the templates can be represented by

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the equations. The apparatus for carrying out the steps are also implied in the cited paragraphs from Kikuchi and shown, for example, in Fig. 2. .

Kikuchi does not express the steps in the sense of the obtaining steps.

It would have been obvious to one of ordinary skill in the art at the time of the invention that the obtaining steps can be interpreted in terms of the calculations made by Kikuchi.

With respect to the slope being used in the calculations, Kikuchi discloses that the equations of the positions in terms of the x and the y components of the positions are calculated and stored in terms of Fourier series equations (paragraphs 0196, 0198, 0239, and 0285), which it is known can be related to the slope, so that it would have been obvious to one of ordinary skill in the art at the time of the invention to have used the maximum slope calculations because Kikuchi uses maximum in Fourier series coefficients, which can be related to slope.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caridad M. Everhart whose telephone number is 571-272-1892. The examiner can normally be reached on Monday through Fridays 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Everhart  
1-28-2005

*C. Everhart*  
CARIDAD EVERHART  
PRIMARY EXAMINER